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Examiner: Luke E. Karpinski  
Art Unit: 1616REMARKS

In response to the Patent Office Letter of June 17, 2009, the Applicant respectfully requests re-examination and reconsideration. Amendments have been made in the independent claims, namely claims 1, 9 and 42. With these amendments it is believed that this application should now be in condition for allowance.

Before discussing the present rejection made by the Examiner and the merits of the present invention, the Applicant wishes to emphasize the fact that the concepts of the present invention and that disclosed in Dawson et al have substantially different objectives. It is the Applicant's position that Dawson et al. addresses a totally different problem or issue in comparison to the issue of the present invention. Dawson et al is concerned with a soap-free cleansing composition which has increased speed of foaming and which has good stability. In this regard refer in Dawson et al to the objects listed in column 3 starting at line 20. It is also noted from Dawson et al that there is no clear teaching as to how long the gel actually takes to form. As a matter of fact, the indication of the use of elevated pressures in Dawson et al is an indication of too early a formation of the gel.

Now, in accordance with the present invention this relates to a method for enhancing the manufacturing process by deliberately controlling the formation of the gel so as to overcome the issue of the composition gelling in and clogging up pipes during the manufacturing process. Thus, in accordance with the present invention, the composition is deliberately maintained in a non-gelled state for at least four minutes after the addition of the post-foaming agent. This not only reduces the manufacturing cost of the end product, but it also increases the filling rates; meaning more units of composition of the present invention can be produced in the same time period relative to previously available compositions. Furthermore, this is performed without compromising the appearance of the gel on first dispensing from the packaging or from the quality of the lather produced by agitating the gel by the user.

It is the Applicant's position that a person skilled in the art would not be able to arrive at the teachings of the present invention by consideration of Dawson et al whether taken alone or in combination with Lyle et al. There is absolutely no motivation to solve the same problem as that

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of the present invention. Neither Dawson et al nor Lyle et al. teach the deliberate creation of a composition which specifically is not converted to a gelled state for at least four minutes after addition of the post-foaming agent to solve the problem of stoppages and breakdowns in the pipe-work of the plant manufacturing the composition. In this regard refer to the background discussion of the present application, particularly with respect to document WO 00/39273.

Now, considering in particular Dawson et al, it is still the Applicant's position that this reference does not teach a delayed gelling of at least four minutes. Instead, Dawson et al teaches that the final gel product is filled under pressure into the final package. In this regard refer to column 9 of Dawson et al at lines 8-12 where it is indicated that the final gel product is stored in a pressurized cylinder until it is filled under pressure into the final package. The Applicant does not perform its method in this manner.

In the past the Examiner has also made mention of another part of the teaching in Dawson et al, namely at column 9, lines 3-8, which mentions that a gel can be generated by shaking all components inside a barrier pack type container (i.e., a final package) or by mixing in any vessel which can maintain pressures. However, even under that circumstance, it is noted that the liquid mixture in Dawson et al is taught as always kept under pressure in storage before being added to any vessel. Furthermore, any vessel that it is added to is taught in Dawson et al as also being pressurized. In this regard refer in Dawson et al to the teachings at column 8, line 53 through column 9, line 2 reference is made to pressurizing at several points. More specifically, the Dawson et al teaching is that the gel is pumped into a steel pipe system where the pressure is maintained at 80-120 psi (column 8, lines 53-57). It is then piped into a storage cylinder which is maintained at 80-90 psi (column 8, lines 65-69). It is hence apparent that the Dawson et al composition must always be kept under pressure, even before packaging, and including before it is added to the barrier pack type container as described by the Examiner with his reference to column 9 at lines 3-7.

The Applicant now sets forth further arguments as related to the different embodiments shown in the Dawson et al patent. In this connection there are basically two different embodiments that are described:

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a) The first main embodiment is disclosed in Dawson et al at column 8, line 53 to column 9, line 2 and column 9 lines 8-19, involving the high pressure transport through the pipework etc, followed by the composition being piped into storage containers before gelling, and filling the final package with the final product. The Examiner maintains that the first embodiment of Dawson et al also teaches the formulations being dispensed into large storage containers prior to gelling, and that these storage containers could be sold as final containers for industrial purposes. The applicant disagrees with this idea, as "final container" is clearly meant, within the context of the present application, as one which is intended to be a small container suitable for personal use. However, to clarify the term "final container" in the independent claims 1, 9 and 42 the final container is now set forth as selected from a group comprising a bag on valve container, a bag in can container and an elasticated bladder container. Basis for this addition to the independent claims can be found at page 9, lines 12-14 of the original specification.

This addition to the independent claims should distinguish between the final container being for personal use and the final container being an industrial storage container. Clearly, Dawson et al's composition does gel before being transferred to a personal use container. Refer to Dawson et al at column 9 lines 8-11 which makes clear reference to a "final gel/product" being stored in a pressurized cylinder *before being filled under pressure into a final package* which may be a pressurized aerosol container for dispensing the gel product. This shows that the formulation is already a gel *before* it is transferred into the final aerosol container package. Accordingly, the claims, as so amended, are hence novel over this embodiment of Dawson et al.

b) The second embodiment in the Dawson et al patent is disclosed at column 9, lines 3-7. This statement in Dawson et al is believed to be an attempt by the inventor to somehow broaden his invention, but without any clear understanding of what the statement at lines 3-7 meant, particularly as it relates to the first embodiment that is disclosed. This second embodiment simply involves the components being mixed in a container which can maintain pressure, or shaking the components inside a barrier pack container to form a gel. The Examiner has stated

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that this second embodiment does not involve any elevated pressure as the components are added to a container which *can maintain pressure*, not one which is *under pressure*.

Thus, this so-called second embodiment (column 9, lines 3-7) somehow suggests that the complicated system involving stainless steel pipes, dynamic mixers and high pressures detailed at the bottom of column 8 and keeping the formulation under constant high pressure is the "ideal manufacturing process", while the patent then goes on to say that in fact one can just get rid of all the pipework and pressure systems and just throw all the components in a container and shake it up instead. It would thus appear that this paragraph is no more than a throwaway statement in Dawson et al.

Moreover, this position is supported by the scientists for the applicant. They confirm that just 'shaking' or 'simple mixing' of the components in the barrier pack type container does not actually work if there is no pressure being applied on the container. The composition formed in the container, with no pressure being applied, is not be homogeneous. It is thus not possible to form a satisfactory gel in this manner at all (let alone one which does not gel for at least 4 minutes after addition of the post-foaming agent), as the foaming agent is not sufficiently incorporated within the composition and separates out from the rest of the components, resulting in an unsatisfactory mixture containing bits of gel, bits of foam, and bits of other liquid components. Again, the Applicant is convinced that this second version is nothing more than an attempt by the inventor to somehow broaden his invention, but without any clear understanding of what the statement at lines 3-7 meant, particularly as it relates to the first embodiment that is disclosed.

In contrast, the present invention does not require the application of specific high pressures. Satisfactory isopentane incorporation into the solution can be achieved by the use of high shear mixing (as opposed to 'simple mixing'). No elevated pressure conditions are hence actually applied to the container. Once mixed, the formulation is filled into the final container for use and is not stored prior to addition into the final container. Accordingly, the claims, as so amended, are also hence novel over this embodiment of Dawson et al.

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The Examiner is also rejecting the argument that there is no motivation in Dawson et al to solve the same problem as the invention (*i.e.* the compositions gelling prematurely and clogging up pipes during the manufacturing process), saying that all embodiments of Dawson et al are free of this problem anyway. Just because the problem is not addressed in Dawson et al does not mean that Dawson et al is not subject to the problem (clogging, etc.). In this regard, the Examiner cites one embodiment which says that the compositions are maintained under pressure at low viscosity, and thus are *supposedly* capable of freely moving through pipework. However, what is required in Dawson et al to pass through the pipework, is the elevated pressures. In other words the Dawson et al system would not work unless pressures of at least 80 psi are applied. The Examiner again mentions the second embodiment where the components are just added to the container before shaking, thus avoiding the problem the invention seeks to solve, but as discussed above, this embodiment does not work.

Why are the compositions kept under pressure at the embodiment at the bottom of column 8 of Dawson et al? It is to prevent the mixture from gelling immediately after addition of the post-foaming agent in the pipes. If the pressure was removed, the mixture would gel and clog up the pipes. Moreover, in the recent Office Action the Examiner stated that "No one of ordinary skill in the art would chose to spend additional money to maintain a delivery system under elevated pressure if said pressures were not required". Thus, it is apparent to a skilled person that Dawson et al does suffer from the same clogging problem that the invention solves, but gets around it by using the 80-120 psi of pressure. The present invention advantageously avoids the pipe clogging issue by the delayed gelling feature of the compositions and without the need for applying such high pressures.

In the Office Action the Examiner has set forth a rejection of claims based on, not only the Dawson et al patent, but also Lyle et al, Hall et al, Anderson III et al and Sisbarro. The following arguments address these rejections whether the references be taken alone or in combination. With reference to the rejections made by the Examiner, the Applicant notes that the dependent claims have also been rejected based on certain prior art such as the references to Hall et al; Anderson III et al; and Sisbarro. In view of the amendments to claims 1, 9 and 42 it is

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believed that these rejections of dependent claims is now moot and that all claims should now be in condition for allowance.

Although the Examiner has stated that Anderson III et al and Sisbarro teaches that a pressure of 30-50 psi is needed to move low viscosity liquid gels through pipework, this still represents a substantial applied pressure (30 psi = 2.07 bar, 50 psi = 3.45 bar) to prevent the gelling and/or decomposition in the pipes. The present invention does not require any extra external pressure to prevent this clogging because of its advantageous delayed gelling property. Also, Anderson III et al discloses a method for packaging a delayed foaming gel composition comprising a post-foaming agent where the composition is mixed together in a 'filling head' 38 (see column 4 line 42-column 5 line 19 and Figure 3) before being quickly transferred to a final container. The gelling occurs inside the container. However, the delayed foaming gel product formed when the post-foaming agent is mixed with an aqueous surfactant is unstable under ambient conditions, but is just stable enough to be exposed to ambient conditions for a short period of time before it is packaged, as long as the components are first chilled to near freezing temperatures before being mixed.

Accordingly, the delayed foaming gel composition of Anderson is not transported through pipeworks as the components are only mixed together in the filling head 38 and the mixture is then *immediately* transferred to the final container. Anderson thus does not 'cure the deficiency of Dawson et al' as claimed by the Examiner.

Sisbarro describes a post-foaming gel where the composition forms a gel before it is added to a filling machine for introduction into a container (column 5 lines 56-59). Sisbarro thus only teaches extracting the gel from the pipework as soon as the gel forms in it, and does not teach anything about delaying the gelling so the composition can be added into its final container before it has gelled. This also thus does not 'cure the deficiency of Dawson et al' as claimed by the Examiner.

Further, although it is said in Dawson et al that the compositions can take up to 24 hours to gel, this is another throwaway statement as there is absolutely no evidence in Dawson et al that they do or are able to show this. In each of the examples, the formulations appear to gel

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immediately (the foaming agent is added and the gel is just said to be formed – if the gel formation was delayed by any period of time it is reasonable to presume that this would have been mentioned in Dawson et al). All Dawson et al says is that the gelling "may be immediate or take anything up to 24 hours, depending on the formulation". Dawson et al has provided absolutely no technical information which would allow a skilled person to prepare a particular formulation which does not gel for at least 4 minutes after addition of the post-foaming agent without the skilled person engaging in a lot of pure trial and error experimentation, which places an undue burden upon him.

Additionally, it remains that Dawson et al, for whatever reason, does not clearly and directly address the same pipe clogging problem as the invention. If a skilled person was looking to solve the problem addressed by the invention, he would consult another document which did directly address a solution for the pipe clogging problem. The only information the skilled person can take from Dawson et al on solving this problem is to apply a significant level of pressure to the system, which would lead him away from the solution provided in the present invention. The delayed gelling solution offered to this problem by the present invention is therefore neither disclosed nor suggested in Dawson et al, nor in any of the other references cited by the Examiner whether taken singly or in combination.

If the skilled person were to consult Lyle et al, the person skilled in the art would find that this document offers no insight into solving this problem either. Lyle et al is concerned with compositions which are structurally stable and do not foam prematurely. While Lyle does ensure the gelling takes place inside a dispensing container, it can only manage this by adding the post-foaming agent to the composition just before (preferably a mere 1 second before) it is introduced into the container (column 2 line 57-column 3 line 14). No mention is made in Lyle et al of pipe clogging issues being overcome; in fact, that the post-foaming agent is preferably added to the composition only 1 second before it is introduced into the container, *i.e.* at the last possible moment, indicates that Lyle et al has no idea how to delay the onset of gelling of the composition and solve the clogging problem, and indeed does not even address this problem.

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It is immaterial that Lyle et al may disclose similar foaming compositions to Dawson et al and that a person skilled in this field may look at both documents. The question must be: does the skilled person derive any information from Lyle, which, in combination with Dawson et al, would allow him to solve the problem posed in the application, and would it lead him clearly to the solution as provided in the claims? The answer in this instance must be no.

Notwithstanding that neither none of the cited prior art addresses the same technical problem as the invention, while cocoamidopropyl betaine is present in the compositions of Lyle, it is merely one component amongst many. There is no motivation for a skilled person to select that one particular component out of all the others and combine it with the formulations of Dawson et al, as no special technical advantage is disclosed for this component which would motivate a skilled person to use it.

Furthermore, the skilled person would not be motivated to modify the composition of Dawson et al by adding the amphoteric surfactant, as suggested by the Examiner, as he is given no indication whatsoever that a formulation comprising this combination of components would have the delayed gelling property and allow the pipe clogging issue to be overcome.

The same principle also applies to the Examiner's reverse argument that a skilled person would modify the composition of Lyle by imposing the anionic surfactant:non-ionic gelling agent ratio from Dawson et al. No technical teaching can be derived from either document on how to overcome the pipe clogging issue in a manner according to the present invention. Accordingly the claims as amended are inventive over the cited art.

The main claims 1, 9 and 424 have been amended to clarify the patentable distinction of the present invention. Regarding the recitation of the final container, this is now defined, in claim 42, as the container from which the composition is later dispensed for direct personal use. Moreover, in all independent claims, the final container or package is now defined as selected from the group comprising a bag on valve container, a bag in can container and an elasticated bladder container.

The Applicant has also added one dependent claim, namely claim 44. Claim 44 depends from claim 42. Claim 42 recites that the foregoing steps are not performed in accordance with a



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maintained pressure of 80-120 psi. In this regard refer to the recent Office Action on page 14 where, in connection with distinctions of pressures, the Examiner stated that "There is nothing in the claims to state that said method is not performed under a maintained pressure of 80-120psi". Such language now appears in dependent claim 44.

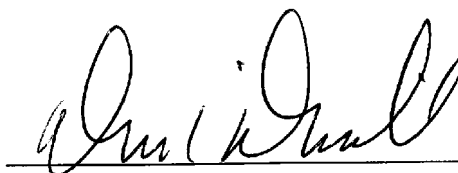
### CONCLUSION

In view of the foregoing amendments and remarks, the Applicant respectfully submits that all of the claims pending in the above-identified application are in condition for allowance, and a notice to that effect is earnestly solicited.

If the present application is found by the Examiner not to be in condition for allowance, then the Applicant hereby requests a telephone or personal interview to facilitate the resolution of any remaining matters. Applicant's attorney may be contacted by telephone at the number indicated below to schedule such an interview.

The U.S. Patent and Trademark Office is authorized to charge any fees incurred as a result of the filing hereof to our Deposit Account No. 19-0120.

Respectfully submitted,  
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